Non-contact measurement of Thermophysical Properties of Metals

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Non-contact methods including electrostatic and electromagnetic levitation enable measurement of thermophysical properties of high-temperature, reactive, and metastable melts. Results will be presented for surface tension, viscosity, and density of a range of metals, including industrial alloys and quasicrystal- and glass-forming alloys. Anomalies in the temperature dependence of these properties give insight into changes in the structure of the undercooled liquids.